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Delivered Date: 03/27/2009 06:26 PM EDT

Subject: FW: City Dredging- Scow Dump Observation (oil sheens)

Dave, Paul and Elaine,

Apex is working with the contractor to mitigate issues associated with sheens that are being noted during dumps in the CAD Cell. Apex has included its summary of the event today which is attached to this e-mail (see below).

Apex can best characterize the issue as "spots of sheen" that range in size from 2 feet by 2 feet to 5 feet by 10 feet. The strong winds and current today encouraged the spot areas to migrate somewhat. At a few locations, the anchored portions of the silt curtain allowed the sheens to move downward of the silt curtain.

The contractor and Apex personnel were dispatched to address these areas. After having collected the sheens, Apex inspected the area and did not note additional spots.

The contractor has ordered additional booms to have onsite for subsequent dumps. We are continuing to work with the contractor to come up with an optimal strategy.

Apex has also ordered additional booms to be able to assist the contractor if necessary.

Chet Myers, P.E.
Apex Companies, LLC
115 Broad Street, Suite 200
Boston, MA 02110

From: Mary Bruno
Sent: Friday, March 27, 2009 4:35 PM
To: Jay Borkland; Chet Myers
Cc: Joshua Ray; Jennifer Martino
Subject: Field Report 3_27

Friday, March 27, 2009

Daily Field Report

- Apex personnel inspected scow TMC 140 at 11:00 AM on Friday, March 27, 2009 to approve material for disposal. No significant debris noticed. Material appeared to be properly dewatered.
- Material within the scow appeared to be silt to coarse sand, trace shell hash. An iridescent sheen was noticeable on the surface of the dredge material sporadically within the scow.
- Prior to disposal, Apex collected water quality monitoring data from both up-current and down-current locations using a 6290 YSI turbidity meter. Water quality readings after calibration of the YSI at up-current and down-current locations appeared normal and low (< 1 NTU).
- Tripp Marine with Apex personnel aboard push-boat "Little Rapids" made their second dump into CAD cell #2, at Location #3 at approximately 12:25 PM.
- After disposal into CAD cell, water quality readings were taken at various down-current locations. There was no visible silt cloud near the surface of the water and turbidity readings on the YSI appeared normal and were low (< 1 NTU).
- Immediately after disposal of scow TMC 140, Apex personnel noticed two foot by two foot dull, waxy iridescent sheen in the water downgradient from the scow. Subsequent to that observation, Apex noticed multiple two foot by two foot spots of dull, waxy, iridescent sheens within a patch of water located south of the disposal location.
- The spots of sheen were traveling in the direction of the wind (approximately to the south) and in the direction of the outgoing tidal current (southeast and southwest). In general, the sheet traveled mostly to the southeast.
- Immediately after observation of the sheen, the contractor deployed oil-adsorbent booms. The contractor began by addressing the northernmost portion of the sheen (the portion closest to his vessel).
- The southernmost portion of the area containing the spots of sheen expanded past the silt-curtain booms (which have a low spot approximately every 25 feet at anchor points, which allowed the sheen to move southward).
- Localized spots of sheen, which ranged from 2 feet by 2 feet to approximately 10 feet by 5 feet were noted in an area that was approximately 100 feet by 250 feet in size. A few of the localized sheens were present south of the silt curtain (these were corralled utilizing oil-adsorbent booms as noted below).
- Apex personnel utilized oil-adsorbent booms to address the areas of the sheen that moved south of the silt curtain.
- Apex and the contractor utilized oil-adsorbent booms until the sheen was no longer visible.
- Forty five minutes after disposal, Apex re-inspected the CAD cell and surrounding areas to inspect for residual sheen. Areas appeared clean and free of sheen.

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-----Original Message-----
From: dickerson.dave@epamail.epa.gov [mailto:dickerson.dave@epamail.epa.gov]
Sent: Friday, March 27, 2009 3:07 PM
To: paul.craffey@state.ma.us; kristin.decas@ci.new-bedford.ma.us
Cc: Catri.Cynthia@epamail.epa.gov; Peterson.David@epamail.epa.gov;
Ng.ManChak@epamail.epa.gov; Gutro.Doug@epamail.epa.gov;
Brill.Larry@epamail.epa.gov; Falvey.Jeanethe@epamail.epa.gov;
stanley.elainet@epamail.epa.gov; joseph.coyne@state.ma.us; Jay Borkland; Chet
Myers
Subject: Fw: City Dredging- Scow Dump Observation (oil sheens)

Kristin and Paul - fyi, please see the attached email describing oil sheening at the current CAD cell operation. We should discuss further to see what additional engineering controls can be put in place to mitigate this.

Dave

----- Forwarded by Dave Dickerson/R1/USEPA/US on 03/27/2009 03:01 PM -----

"L'Heureux, Paul G NAE" <Paul.G.L'Heureux@usace.army.mil>

To: "Mackay, Joseph B NAE" <Joseph.B.Mackay@usace.army.mil>, "Mitkevicius, K C NAE" <K.C.Mitkevicius@usace.army.mil>, "Leitch, Robert A NAE" <Robert.A.Leitch@usace.army.mil>, Barbara Bergen/NAR/USEPA/US@EPA, <dahlend@battelle.org>, "Coyne, Joseph (DEP)" <Joseph.Coyne@state.ma.us>, "Dragos, Paul M" <dragosp@BATTELLE.ORG>, Dave Dickerson/R1/USEPA/US@EPA, William Nelson/NAR/USEPA/US@EPA, ElaineT Stanley/R1/USEPA/US@EPA

cc: "Beaudoin, Maurice NAE" <Maurice.Beaudoin@usace.army.mil>, <mark.gouveia@jacobs.com>, <steve.fox@jacobs.com>, "Wilson, Carl" <Carl.Wilson2@jacobs.com>

Date: 03/27/2009 02:27 PM

Subject: FW: City Dredging- Scow Dump Observation

Tripp Marine made their second dump in the CAD cell at approximately 1220 hrs on Friday, March 27, 2009. High tide today was at 0907. They departed the upper harbor location at 1140 hours. Listed below are my observations.

There was heavy rain last night into this morning. The sky was overcast and there was a strong wind blowing out of the northeast. The water in both the upper and lower harbor was considerably more turbid because of the precipitation run off.

The material in this scow (as opposed to the last one)has more typical material properties of the PCB contaminated material we dredge. The first scow had the speed bump material dredged near the Coggshall Street Bridge which was much more coarse grained. Todays scow was more organic with marine silts and clays and much stronger smelling organics. Much of this odor can be attributed to material deposited from CSO discharge.

Apex was at the dump site performing water quality monitoring and scow positioning in the CAD cell. Within 7 to 10 minutes after dumping, there was a significant amount of oil on the water surface which was about the width of the CAD cell and extended back to the north side of Popes Island. The oil sheen was different in appearance today as it did not look like an emulsion (like the first dump). It had the appearance of the sheen we get when dredging in heavily contaminated areas. It looked like the light "waxy" PCB carrier oil with rainbow colored sheen. Apex and Tripp attempted to put out oil boom to collect the oil. I could not remain on site to see if they were successful. When I left, the oil was still coming out of the CAD and was significantly downstream. I was not able to pick up a plume direction because of the existing water turbidity. H2S smell was very strong today but was dispersed by a significant wind. I could envision that the oil and H2S will

be significant problems we would need to overcome if we change to CAD cell
disposal.

Battelle was in the vicinity of the CAD cell performing velocity gradients. I
spoke with Paul and Matt (and Mike Walsh)about what they were able to
observe. I told them that Tripp plans to work Saturday and Sunday with a
potential dump late in the day on Sunday or Monday. I will give them an
updated observation on Monday morning.

-----Original Message-----
From: L'Heureux, Paul G NAE
Sent: Friday, March 27, 2009 11:19 AM
To: 'Dragos, Paul M'; Mackay, Joseph B NAE; 'Skip Nelson'; 'Barb Bergen';
'Dave Dickerson'; 'Dahlen, Deirdre T'; 'Elaine Stanley'; Mitkevicius, K C
NAE; Leitch, Robert A NAE; 'Coyne, Joseph (DEP)'
Cc: Beaudoin, Maurice NAE
Subject: RE: City Dredging- Scow Dump Observation

During my last observation, I did not account for the dredger working until
dark during the last two days. As a result, they are preparing for another
dump sometime this afternoon. I will be going out to watch this dump as well.
I do not know yet if they are working the weekend or not. If so, there may be
another dump late Sunday. I will forward info as soon as I get it.

-----Original Message-----
From: Dragos, Paul M [mailto:dragosp@BATTELLE.ORG]
Sent: Wednesday, March 25, 2009 5:22 PM
To: L'Heureux, Paul G NAE; Mackay, Joseph B NAE; Skip Nelson; Barb Bergen;
Dave Dickerson; Dahlen, Deirdre T; Elaine Stanley; Mitkevicius, K C NAE;
Leitch, Robert A NAE
Cc: Beaudoin, Maurice NAE
Subject: RE: City Dredging- Scow Dump Observation

Paul:

Thanks for your observations. That's good news that there should be no
problem for us to get our boat inside the silt curtain during disposal.

As for the frequency of dumps, we will be ready to go this Monday and
standing by. But we can't stand by in New Bedford two days out of three.
There isn't budget for that. Is there anyone with the dredger or APEX that
can give you a days notice (or even 1/2 day) of a pending dump? If not,

is
there someone we can call each day for their status from which we could
make
an educated guess regarding the next days outgoing tide.

Thanks

Paul

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-----Original Message-----
From: L'Heureux, Paul G NAE [mailto:Paul.G.L'Heureux@usace.army.mil]
Sent: Wednesday, March 25, 2009 4:18 PM
To: Mackay, Joseph B NAE; Dragos, Paul M; Skip Nelson; Barb Bergen; Dave
Dickerson; Dahlen, Deirdre T; Elaine Stanley; Mitkevicius, K C NAE;
Leitch,
Robert A NAE
Cc: Beaudoin, Maurice NAE
Subject: City Dredging- Scow Dump Observation

Mark Gouveia, Carl Wilson and myself observed the first dump from
Tripp's
split hull scow today at 1100 hrs. Tripp Marine communicates on channel
77 on
a navigation radio. Listed below are my observations.

1. Dumping times are tied to the tide. The scow was drafting 9.0 feet.
They
need to leave the upper harbor on an outgoing tide approximately 2 hours
after high (to allow clearance of vessels under the bridges. The time
from
mobilization of the scow to the CAD cell and return is approximately 4
hours.
Once dumped, the scow is approximately 10 feet high above water. They
must
re-enter the upper estuary at low tide or pump water into the scow to
lower
it. (The scow is new and watertight). There is no way they can make one
dump
a day. At best, it looks like every third day by the time they are able
to
get back on station and begin dredging again.

2. The scow is met by a crew at the CAD cell who open the silt curtain

gate
on the western side of the cell. The scow is position by GPS coordinates
into
a predescribed location for dumping. The silt curtain door is closed
(sort
of) once the scow is inside. There is plenty of room inside the silt
curtained cell for our observation boat. Tripp was asked by Apex if we
could
get inside with them and they have no problem with that.

3. Wind was very brisk out of the north. There was a fairly good H2S
smell
from the full barge and also following the dump. We observed the dump
from
the downwind location to the south. Once the dump happened, there was
very
little turbidity observable from our location other than an area
adjacent the
scow. Within ten minutes, a light, foamy emulsified oil sheen was
observed
exiting over and possibly under the silt curtain. It was not a heavy
rainbow
sheen that we have seen in the upper harbor at times. We also observed
the
water getting turbid outside the curtain. Given the wind conditions,
tracking
an exit plume was very easy.

4. Tripp Marine deployed some oil absorbent rags in the oily areas. I
suggested to Chet Meyers,(Apex) that they have some oil boom available
onsite
in case there is significant oil that needs to be collected. He asked me
if I
was requiring them to deploy oil boom as well as the curtains. I stated
that
I had no legal standing in their contract but told them how we use oil
boom
strung between two boats to corral floating oils.